

SEQUENCE LISTING

<110> Tait, Jonathan F.
Brown, David S.

<120> Annexin Derivatives with Endogenous Chelation Sites

<130> uofw-1-13841

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<170> PatentIn Ver. 2.0

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Lys Ala Met Lys Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu
35 40 45

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Leu Thr Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Phe
50 55 60

aag act ctg ttt ggc agg gat ctt ctg gat gac ctg aaa tca gaa cta 240
Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu
65 70 75 80

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Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg

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 165 170 175

gct caa gtt gaa caa gat gct cag gct tta ttt cag gct gga gaa ctt 576
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 195 200 205

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 210 215 220

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 245 250 255

tac ctt gca gag acc ctc tat tat gct atg aag gga gct ggg aca gat 816
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ctg ctc tcc gga gaa gat gac 981
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Leu Thr Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Phe
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Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu
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Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg
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Leu Tyr Asp Ala Tyr Glu Leu Lys His Ala Leu Lys Gly Ala Gly Thr
 100 105 110

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Val Val Leu Leu Gln Ala Asn Arg Asp Pro Asp Ala Gly Ile Asp Glu
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Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser
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245 250 255

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Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu
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115	120	125	
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35 40 45

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50 55 60

Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu
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Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu
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Glu Gln Leu Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala
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Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala Met Lys Gly Ala Gly Thr Asp
260 265 270

Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu
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Phe Asn Ile Arg Lys Glu Phe Arg Lys Asn Phe Ala Thr Ser Leu Tyr
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Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu
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Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg
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Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu		
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180	185	190
aaa tgg ggg aca gat gaa gaa aag ttt atc acc atc ttt gga aca cga		624
Lys Trp Gly Thr Asp Glu Glu Lys Phe Ile Thr Ile Phe Gly Thr Arg		
195	200	205
agt gtg tct cat ttg aga aag gtg ttt gac aag tac atg act ata tca		672
Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser		
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Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu		
225	230	235
240		
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Glu Gln Leu Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala		
245	250	255
tac ctt gca gag acc ctc tat tat gct atg aag gga gct ggg aca gat		816
Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala Met Lys Gly Ala Gly Thr Asp		
260	265	270
gat cat acc ctc atc aga gtc atg gtt tcc agg agt gag att gat ctg		864
Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu		
275	280	285
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Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg
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Leu Tyr Asp Ala Tyr Glu Leu Lys His Ala Leu Lys Gly Ala Gly Thr
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Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu
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Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Glu Tyr Gly Ser Ser Leu
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Glu Asp Asp Val Val Gly Asp Thr Ser Gly Tyr Tyr Gln Arg Met Leu
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Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu
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195 200 205

Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser
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Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu
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Glu Gln Leu Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala
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260 265 270

Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu
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Phe Asn Ile Arg Lys Glu Phe Arg Lys Asn Phe Ala Thr Ser Leu Tyr
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Leu Leu Ser Gly Glu Asp Asp
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SEQUENCE LISTING

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Brown, David

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<130> UOFW-1-13841

<140> US 09/324,096

<141> 1999-06-01

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<170> PatentIn version 3.0

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aat gaa aaa gta ctg aca gaa att att gct tca agg aca cct gaa gaa

384

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432

Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Glu Tyr Gly Ser Ser Leu

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480

Glu Asp Asp Val Val Gly Asp Thr Ser Gly Tyr Tyr Gln Arg Met Leu

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528

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gct caa gtt gaa caa gat gct cag gct tta ttt cag gct gga gaa ctt

576

Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu

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190

aaa tgg ggg aca gat gaa gaa aag ttt atc acc atc ttt gga aca cga

624

Lys Trp Gly Thr Asp Glu Glu Lys Phe Ile Thr Ile Phe Gly Thr Arg

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Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser

210

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220

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720

Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu

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gag caa cta ctc ctt gct gtt gtg aaa tct att cga agt ata cct gcc

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Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu

275

280

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Phe Asn Ile Arg Lys Glu Phe Arg Lys Asn Phe Ala Thr Ser Leu Tyr

290

295

300

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960

Ser Met Ile Lys Gly Asp Thr Ser Gly Asp Tyr Lys Lys Ala Leu Leu

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320

ctg ctc tcc gga gaa gat gac

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Leu Leu Ser Gly Glu Asp Asp

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Leu Tyr Asp Ala Tyr Glu Leu Lys His Ala Leu Lys Gly Ala Gly Thr
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Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu
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Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Glu Tyr Gly Ser Ser Leu
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Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu
 180 185 190

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 195 200 205

Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser
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Glu Gln Leu Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala
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Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala Met Lys Gly Ala Gly Thr Asp
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Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu
 275 280 285

Phe Asn Ile Arg Lys Glu Phe Arg Lys Asn Phe Ala Thr Ser Leu Tyr
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act gac ttc cct gga ttt gat gag cgg gct gat gca gaa act ctt cgg

96
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20 25 30

aag gct atg aaa ggc ttg ggc aca gat gag gag agc atc ctg act ctg

144
 Lys Ala Met Lys Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu

35

40

45

ttg aca tcc cga agt aat gct cag cgc cag gaa atc tct gca gct ttt

192

Leu Thr Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Phe

50

55

60

aag act ctg ttt ggc agg gat ctt ctg gat gac ctg aaa tca gaa cta

240

Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu

65

70

75

80

act gga aaa ttt gaa aaa tta att gtg gct ctg atg aaa ccc tct cgg

288

Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg

85

90

95

ctt tat gat gct tat gaa ctg aaa cat gcc ttg aag gga gct gga aca

336

Leu Tyr Asp Ala Tyr Glu Leu Lys His Ala Leu Lys Gly Ala Gly Thr

100

105

110

aat gaa aaa gta ctg aca gaa att att gct tca agg aca cct gaa gaa

384

Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu

115

120

125

ctg aga gcc atc aaa caa gtt tat gaa gaa gaa tat ggc tca agc ctg

432

Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Glu Tyr Gly Ser Ser Leu

130

135

140

gaa gat gac gtg gtg ggg gac act tca ggg tac tac cag cgg atg ttg

480

Glu Asp Asp Val Val Gly Asp Thr Ser Gly Tyr Tyr Gln Arg Met Leu

145

150

155

160

gtg gtt ctc ctt cag gct aac aga gac cct gat gct gga att gat gaa

528

Val Val Leu Leu Gln Ala Asn Arg Asp Pro Asp Ala Gly Ile Asp Glu

165

170

175

gct caa gtt gaa caa gat gct cag gct tta ttt cag gct gga gaa ctt

576

Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu

180

185

190

aaa tgg ggg aca gat gaa gaa aag ttt atc acc atc ttt gga aca cga

624

Lys Trp Gly Thr Asp Glu Glu Lys Phe Ile Thr Ile Phe Gly Thr Arg

195

200

205

agt gtg tct cat ttg aga aag gtg ttt gac aag tac atg act ata tca

672

Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser

210

215

220

gga ttt caa att gag gaa acc att gac cgc gag act tct ggc aat tta

720

Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu

225

230

235

240

gag caa cta ctc ctt gct gtt gtg aaa tct att cga agt ata cct gcc

768

Glu Gln Leu Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala

245

250

255

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816

Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala Met Lys Gly Ala Gly Thr Asp

260

265

270

gat cat acc ctc atc aga gtc atg gtt tcc agg agt gag att gat ctg

864

Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu

275

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912

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290

295

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960

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Lys Ala Met Lys Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu		
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Leu Thr Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Phe		
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Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu
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Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg
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Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu
 115 120 125

Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Tyr Gly Ser Ser Leu
 130 135 140

Glu Asp Asp Val Val Gly Asp Thr Ser Gly Tyr Tyr Gln Arg Met Leu
 145 150 155 160

Val Val Leu Leu Gln Ala Asn Arg Asp Pro Asp Ala Gly Ile Asp Glu
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Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu
 180 185 190

Lys Trp Gly Thr Asp Glu Glu Lys Phe Ile Thr Ile Phe Gly Thr Arg
 195 200 205

Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser
 210 215 220

Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu
 225 230 235 240

Glu Gln Leu Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala
 245 250 255

Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala Met Lys Gly Ala Gly Thr Asp
 260 265 270

Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu
 275 280 285

Phe Asn Ile Arg Lys Glu Phe Arg Lys Asn Phe Ala Thr Ser Leu Tyr
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 Thr Asp Phe Pro Gly Phe Asp Glu Arg Ala Asp Ala Glu Thr Leu Arg

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aag gct atg aaa ggc ttg ggc aca gat gag gag agc atc ctg act ctg

144
 Lys Ala Met Lys Gly Leu Gly Thr Asp Glu Glu Ser Ile Leu Thr Leu

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Leu Thr Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Phe

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aag act ctg ttt ggc agg gat ctt ctg gat gac ctg aaa tca gaa cta

240

Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu

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80

act gga aaa ttt gaa aaa tta att gtg gct ctg atg aaa ccc tct cgg

288

Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg

85

90

95

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336

Leu Tyr Asp Ala Tyr Glu Leu Lys His Ala Leu Lys Gly Ala Gly Thr

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105

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384

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Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Glu Tyr Gly Ser Ser Leu

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gaa gat gac gtg gtg ggg gac act tca ggg tac tac cag cgg atg ttg

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Glu Asp Asp Val Val Gly Asp Thr Ser Gly Tyr Tyr Gln Arg Met Leu

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Val Val Leu Leu Gln Ala Asn Arg Asp Pro Asp Ala Gly Ile Asp Glu

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Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu

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Lys Trp Gly Thr Asp Glu Glu Lys Phe Ile Thr Ile Phe Gly Thr Arg

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agt gtg tct cat ttg aga aag gtg ttt gac aag tac atg act ata tca

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Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser

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gga ttt caa att gag gaa acc att gac cgc gag act tct ggc aat tta

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Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu

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768

Glu Gln Leu Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala

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tac ctt gca gag acc ctc tat tat gct atg aag gga gct ggg aca gat

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Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala Met Lys Gly Ala Gly Thr Asp

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gat cat acc ctc atc aga gtc atg gtt tcc agg agt gag att gat ctg

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Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu

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Phe Asn Ile Arg Lys Glu Phe Arg Lys Asn Phe Ala Thr Ser Leu Tyr

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Ser Met Ile Lys Gly Asp Thr Ser Gly Asp Tyr Lys Lys Ala Leu Leu

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<210> 6

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<213> Homo sapiens

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35 40 45Leu Thr Ser Arg Ser Asn Ala Gln Arg Gln Glu Ile Ser Ala Ala Phe
50 55 60

Lys Thr Leu Phe Gly Arg Asp Leu Leu Asp Asp Leu Lys Ser Glu Leu
 65 70 75 80

Thr Gly Lys Phe Glu Lys Leu Ile Val Ala Leu Met Lys Pro Ser Arg
 85 90 95

Leu Tyr Asp Ala Tyr Glu Leu Lys His Ala Leu Lys Gly Ala Gly Thr
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Asn Glu Lys Val Leu Thr Glu Ile Ile Ala Ser Arg Thr Pro Glu Glu
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Leu Arg Ala Ile Lys Gln Val Tyr Glu Glu Glu Tyr Gly Ser Ser Leu
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Glu Asp Asp Val Val Gly Asp Thr Ser Gly Tyr Tyr Gln Arg Met Leu
 145 150 155 160

Val Val Leu Leu Gln Ala Asn Arg Asp Pro Asp Ala Gly Ile Asp Glu
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Ala Gln Val Glu Gln Asp Ala Gln Ala Leu Phe Gln Ala Gly Glu Leu
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Lys Trp Gly Thr Asp Glu Glu Lys Phe Ile Thr Ile Phe Gly Thr Arg
 195 200 205

Ser Val Ser His Leu Arg Lys Val Phe Asp Lys Tyr Met Thr Ile Ser
 210 215 220

Gly Phe Gln Ile Glu Glu Thr Ile Asp Arg Glu Thr Ser Gly Asn Leu
 225 230 235 240

Glu Gln Leu Leu Leu Ala Val Val Lys Ser Ile Arg Ser Ile Pro Ala
 245 250 255

Tyr Leu Ala Glu Thr Leu Tyr Tyr Ala Met Lys Gly Ala Gly Thr Asp
 260 265 270

Asp His Thr Leu Ile Arg Val Met Val Ser Arg Ser Glu Ile Asp Leu
275 280 285

Phe Asn Ile Arg Lys Glu Phe Arg Lys Asn Phe Ala Thr Ser Leu Tyr
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Leu Leu Ser Gly Glu Asp Asp
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